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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------------|
| 09/580,495 | 05/30/2000 | Alan Frank Graves | 7000-431 | 8315 |
| 27820 7590 07/16/2007 WITHROW & TERRANOVA, P.L.L.C. 100 REGENCY FOREST DRIVE SUITE 160 CARY, NC 27518 | | | EXAMINER TRAN, DZUNG D | |
| | | | ART UNIT 2613 | PAPER NUMBER |
| | | | MAIL DATE 07/16/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/580,495

Applicant(s)

GRAVES ET AL.

Examiner

Dzung D. Tran

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) 4-14, 17, 18 and 25-57 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 20-24 is/are allowed.
- 6) ☒ Claim(s) 15, 16, 19 and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Specification

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15, 16, 19, 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. U.S. patent no. 6,559,984 in view of Terahara et al. U.S. patent no. 6,134,034.

Regarding claims 15, 16, 19, 58, Lee clearly discloses in figure 5, a optical path monitoring with an optical switch (520) providing individual signal paths between a plurality of input ports and a plurality of output ports, said switch having a plurality of wavelength division multiplexers 540 for combining sets of individual switched optical signals into multiplexed switched optical signals (see figure 5).

Lee does not specifically disclose a method of individually controlling the intensity of a plurality of optical carrier signal.

Terahara in figure 13, discloses a method of individually controlling the intensity of a plurality of optical carrier signal comprising:

an optical tapping 32 for tapping portion of each WDM optical signal after recombined by the multiplexer 18 to produce a respective tapped optical signal;

a control circuit 36 for processing each tapped optical signal to produce an estimate of the power of each optical carrier signal in the WDM optical signal;

power detector/controller 36 connected to an output of a wavelength division multiplexer 18 through splitter 32 and to the optical variable attenuator (58-1, 58-2, ...58-m) for adjusting or equalizing the power of each of plurality of wavelength (e.g., ch-1, ch-2, ..., ch-m). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the teaching of Terahara in the system of Lee. One of ordinary skill in the art would have been motivated to do this in order to adjust the power level of each optical channel based upon the detected power level of each plurality of attenuated optical signal so as to equalize the power in each of the plurality of optical channel. Furthermore, the "optical switch limitation" is in the preamble and it is not given patentable weight.

4. The withdrawn claims 4-14, 17-18, 25-57 must be canceled.
5. Claimed 1-3 and 20-24 are allowed.

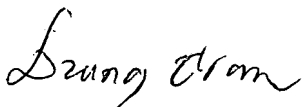
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran
07/02/2007


DZUNG TRAN
PRIMARY PATENT EXAMINER